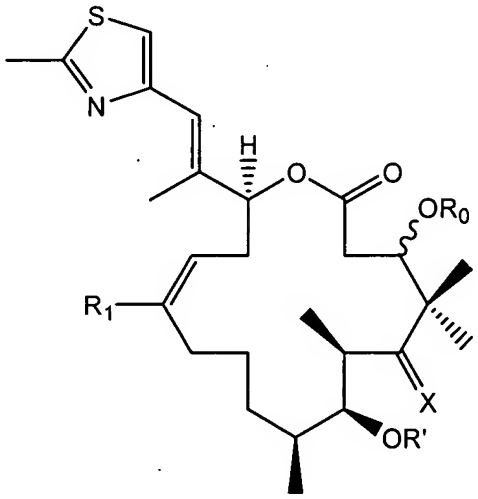
Amendments to the Claims

This following Listing of the Claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

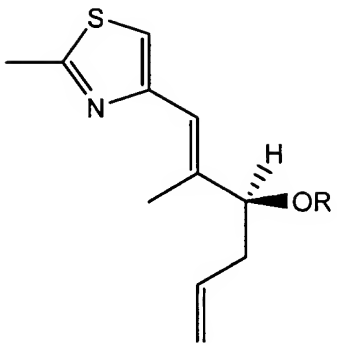
1-26. (Canceled)

27. (Currently amended) A method of preparing an epothilone precursor having the structure:

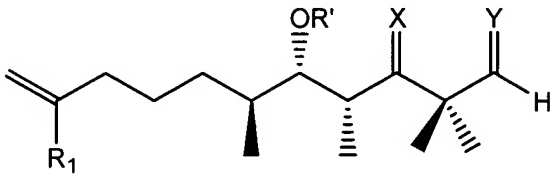


wherein R_1 is hydrogen or methyl; wherein X is O, or a hydrogen and OR", each singly bonded to carbon; and wherein R_0, R' and R" are independently hydrogen, a linear or branched alkyl, substituted or unsubstituted aryl or benzyl, trialkylsilyl, dialkylarylsilyl, alkyldiarylsilyl, a linear or branched acyl, substituted or unsubstituted aroyl or benzoyl, which comprises

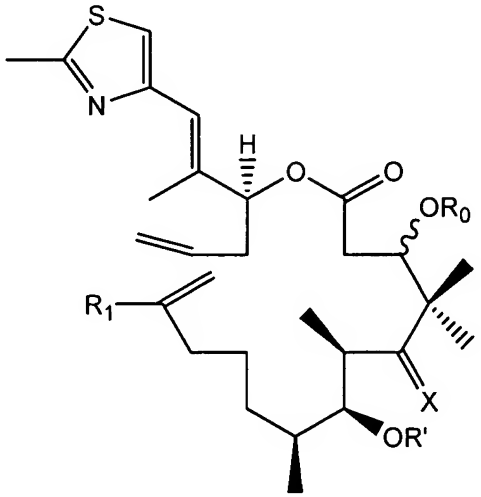
(a) coupling a compound having the structure:



wherein R is an acetyl, with an aldehyde having the structure:



wherein Y is oxygen, under suitable conditions to form an aldol intermediate and optionally protecting the aldol intermediate under suitable conditions to form an acyclic ~~epthilone precursor~~ epothilone precursor having the structure:



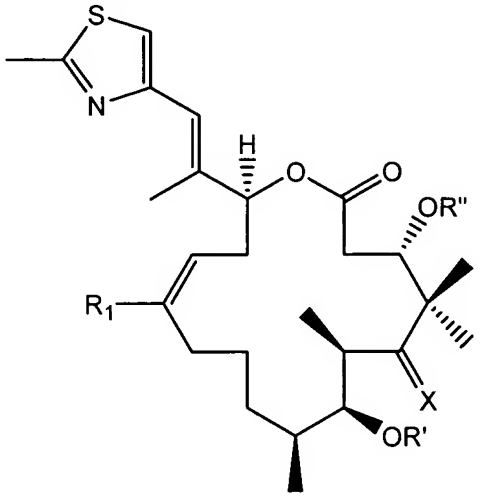
(b) subjecting the ~~acylic~~ acyclic epothilone precursor to conditions leading to intramolecular olefin metathesis to form the epothilone precursor.

28. (Original) The method of claim 27 wherein the conditions leading to intramolecular olefin metathesis require the presence of an organometallic catalyst.

29. (Original) The method of claim 27 wherein the catalyst is a Ru or Mo complex.

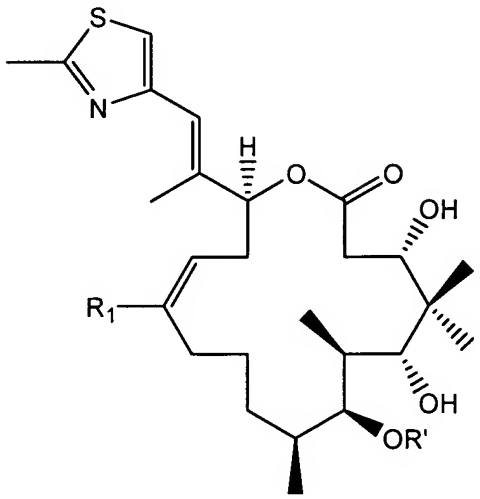
30-36. (Canceled)

37. (Original) A method of preparing a protected epothilone having the structure:

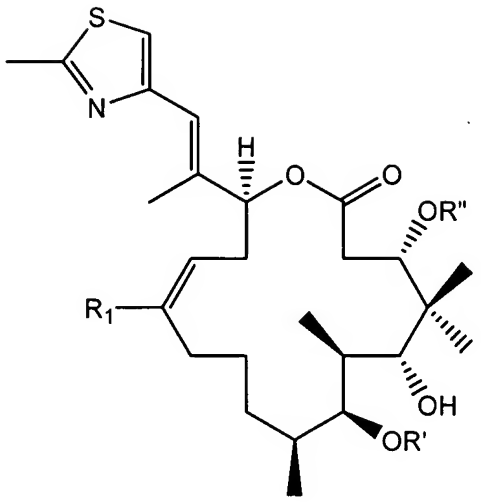


wherein R' and R" are independently hydrogen, a linear or branched alkyl, substituted or unsubstituted aryl or benzyl, trialkylsilyl, dialkyl-arylsilyl, alkyldiarylsilyl, a linear or branched acyl, substituted or unsubstituted aroyl or benzoyl, which comprises:

(a) monoprotecting a cyclic diol having the structure:



under suitable conditions to form a cyclic alcohol having the structure:



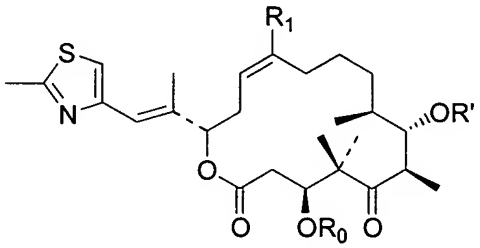
and

(b) oxidizing the cyclic alcohol formed in step (a) under suitable conditions to form the protected epothilone.

38. (Original) The method of claim 37 wherein R' and R" are TBS.

39-58. (Cancelled)

59. (Previously presented) A compound having the structure:



wherein R_1 is hydrogen or methyl, and R_0 and R' are each hydrogen.

60. (New) The method of claim 27, wherein step (a) comprises using a non-nucleophilic base.

61. (New) The method of claim 60, wherein the non-nucleophilic base is lithium diethylamide or lithium diisopropylamide.

62. (New) The method of claim 27, wherein step (a) is performed at subambient temperatures.

63. (New) The method of claim 27, wherein step (a) is performed at about -78 °C.

64. (New) The method of claim 28, wherein the catalyst is Grubbs's catalyst.

65. (New) The method of claim 37, wherein step (a) is performed in the presence of a base.

66. (New) The method of claim 65, wherein the base is 2,6-lutidine.

67. (New) The method of claim 37, wherein step (a) is performed in an inert organic solvent.

68. (New) The method of claim 67, wherein the solvent is dichloromethane.

69. (New) The method of claim 37, wherein step (a) is performed at subambient temperatures.

70. (New) The method of claim 37, wherein step (a) is performed at about -30 °C.

71. (New) The method of claim 37, wherein step (b) is performed using Dess-Martin periodinane in an inert organic solvent.

72. (New) The method of claim 71, wherein the solvent is dichloromethane.

73. (New) The method of claim 37, wherein step (b) is performed at 20-25 °C.